ABSTRACT

A computer program product, apparatus, and method for use in determining the position of a user terminal includes receiving at the user terminal a digital television (DTV) broadcast signal transmitted by a DTV transmitter; tracking a periodic component of the DTV signal using a delay-lock loop (DLL), including selecting an observation interval based on the timing of the periodic component, and turning on a portion of the DLL during the observation interval, and turning the portion off otherwise; and determining a pseudo-range between the user terminal and the DTV transmitter based on the DTV broadcast signal; and wherein the position of the user terminal is determined based on the pseudo-range and a location of the DTV transmitter.